On the conservation of the name *Neptunea beringiana* (Middendorff, 1848)

Yuri I. KANTOR[1], A. V. SYSOEV[2]

[1]*A.N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect 33, Moscow 117071, RUSSIA*
[2]*Zoological Museum of Moscow State University, B. Nikitskaya Str. 6, Moscow 109009, RUSSIA*

(*Ruthenica,* 2002, 12(2): 174-176.)

О сохранении названия *Neptunea beringiana* (Middendorff, 1848)

Ю. И. КАНТОР[1], А. В. СЫСОЕВ[2]

[1]*Институт проблем экологии и эволюции им. А.Н.Северцова РАН, Ленинский просп. 33, Москва 119071*
[2]*Зоологический музей МГУ, Большая Никитская ул., 6, Москва, 103009*

The French circumglobe expedition of the fregate *Venus* (1836-1839) under the commandership of captain A.A. Dupetit-Thouars was one of the first expeditions that visited Kamchatka on August 30 — September 15, 1837 (Chamberlin, 1960).

During the cruise the zoological material was collected by surgeons A. S. Néboux and C.-R. A. Leclancher. The molluscs from the voyage included almost 400 species (over 1500 specimens) and has been deposited in 1840 in Muséum national d'histoire naturelle (MNHN), Paris (Beautemps-Beaupré, de Blainville, de Beaumont, 1840). In 1846 A. Valenciennes (professor of Malacology at that time in the Museum) published 27 plates of very high quality, figuring 86 of the species (at least 62 new names), accompanied by binominal Latin names in the captions in the Atlas of the zoological collections. Later the descriptions of vertebrates were published, but never of the invertebrates. Thus the descriptions of the new species are based solely on figures and are essentially without locality data. Type specimens of several species of molluscs have been identified in the collections of the museum (Lamy, 1922; Fischer-Piette, Beigbeder, 1943).

Among the molluscs from the *Venus* expedition materials there is a species, which is well-known in malacological literature as *Neptunea beringiana* (Middendorff, 1848), and described by Valenciennes (1846) as *Fusus bulbosus* (pl. 5, fig. 2a-2c). Three syntypes, including the figured one (Fig. 1 C) are preserved in MNHN. Type locality — Kamchatka (according to the original label).

Thus the name of Valenciennes appeared to be senior synonym of that of Middendorff. The search in the malacological literature revealed, that the name *Fusus bulbosus* was never used after 1899. According to article 23.9.1.2 of ICZN, if the junior synonym has been used for particular taxon, as its presumed valid name, in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years, the prevailing usage must be maintained. The name of Middendorff was used by the following authors (in chronological order):

Scarlato, 1952: 120 (as *Neptunea satura* var. *beringiana*)
Ushakov, 1953: 249 (as *satura beringiana*)
La Rocque, 1953: 216 (as *Chrysodomus saturus beringianus*)
Golikov, 1961: 999.
Golikov, 1963: 166-170
Shikama, Horikoshi, 1963: 82, pl. 124 (as *Neptunea beringiana cordata*)
Have, Ito, 1965: 64, pl. 22, fig. 2 (as *ventricosa beringiana*).
Macpherson, 1971: 81.
Abbott, 1974: 214.
Goryachev, 1974: 59.
Goryachev, 1975: 142.
Golikov, Gulbin, 1977: 194-195.
Piskunov, 1978: 65.
Goryachev, 1978: 48-52.
Piskunov, 1982: 74, 76.
Petrov, 1982: 45-46.
Golikov, Scarlato, 1985: 411.
Titova, 1986: 51.
Golikov, Goryachev, Kantor, 1987: 769.
Goryachev, 1987: 60.
Tiba, Kosuge, 1988: 17-11 — 17-13.
Gladenkov, Sinelnikova, Titova, 1988: 91-92.
Abbott, Dance, 1989: 164 (as *Neptunea ventricosa* form *behringiana*)
Bogdanov, Sirenko, 1993: 41
Golikov, 1995:38-39.
Shuntov, Dulepova, 1995: 367.

Thus both conditions of the Article 23.9.1 are met and we take the action in accordance with this Arcticle, as is required by Article 23.9.2. The name *Tritonium (Fusus) antiquum* var. *behringiana* Middendorff,1848, thus must be qualified as *nomen protectum*, while the name *Fusus bulbosus* Valenciennes, 1846 must be qualified as *nomen oblitum.*

Neptunea beringiana (Middendorff, 1848)

Tritonium (Fusus) antiquum var. *behringiana* Middendorff, 1848: 243
Tritonium (Fusus) antiquum var. *beringiana* Middendorff, 1849: 131, Taf. II, Fig. 3, 4 (partim).

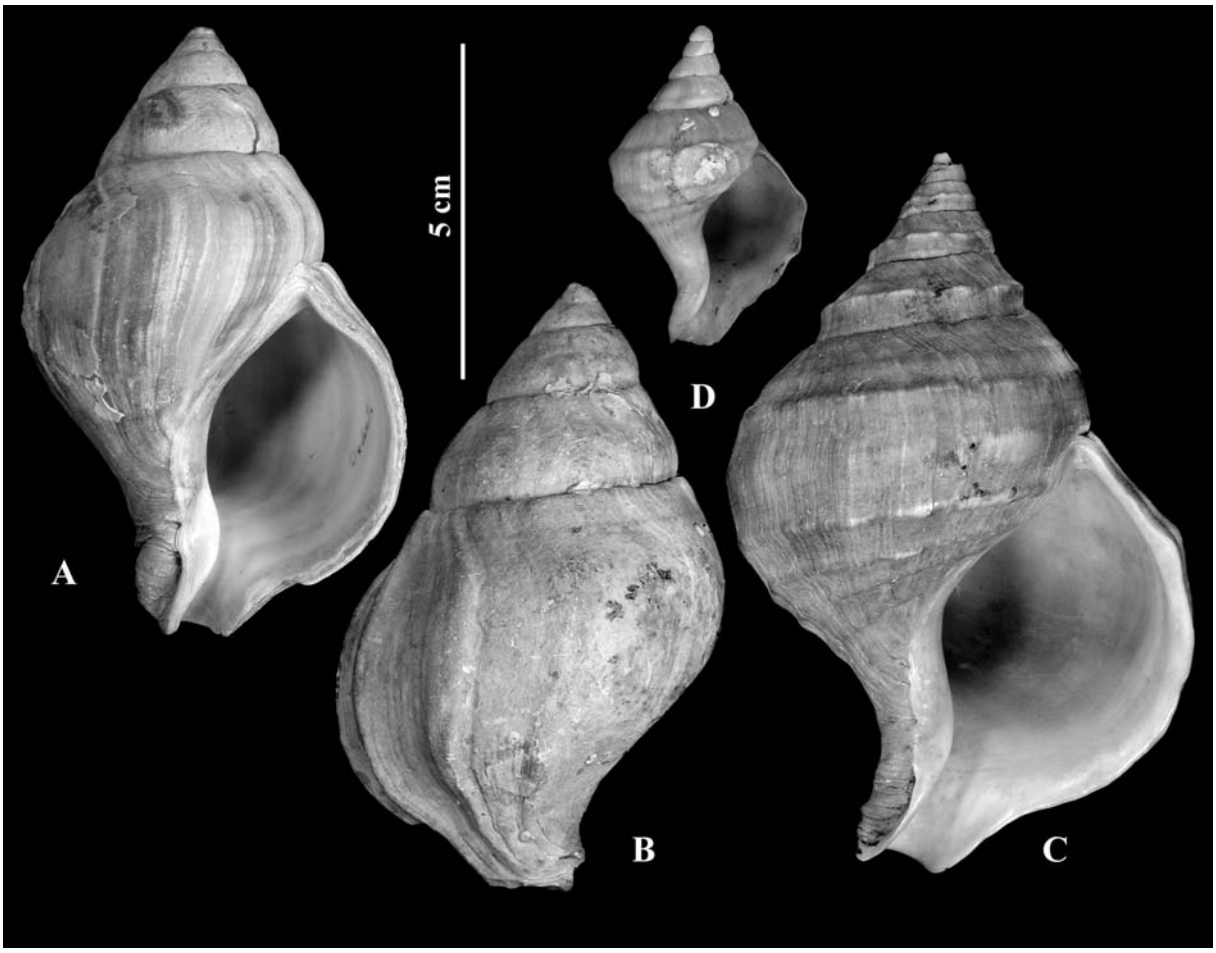

FIG. 1. A-B — syntype of *Tritonium (Fusus) antiquum* var. *behringiana* Middendorff, 1848, Shantar Island, Tugur Bay, Okhotsk Sea, ZIN 13979/3, 90.4 mm. C, D — syntypes of *Fusus bulbosus* Valenciennes, 1846, Kamchatka, MNHN. C — figured syntype, 107 mm. D — 47.6 mm. All shells at the same scale.

РИС. 1. A-B — синтип *Tritonium (Fusus) antiquum* var. *behringiana* Middendorff, 1848, Шантарские острова, залив Тугур, Охотское море, ZIN 13979/3, 90,4 мм. C, D — синтипы *Fusus bulbosus* Valenciennes, 1846, Камчатка, MNHN. C — иллюстрированный синтип, 107 мм. D — 47,6 мм. Все раковины в одном масштабе.

6 syntypes of *Neptunea behringiana* are stored in the Zoological Institute of Russian Academy of Sciences, St.-Petersburg (ZIN 13977/1, 13978/2, 13979/3) (Fig. 1 A-B). Type locality: Shantar island, Tugur bay, Okhotsk Sea.

The spelling of the specific name needs some comments. Originally Middendorff spelled it as *behringiana,* but in 1849 changed to *beringiana.* The original spelling can not be considered as *incorrect original spelling* (in accordance with the Article 32.5.1 of ICZN) and correspondingly the name *beringiana* can be considered as *incorrect subsequent spelling* (Article 33.1). At the same time, the spelling *beringiana* was in prevailing usage and was attributed to the publication of the original spelling and thus, according to the Article 33.3.1 it is deemed to be a correct original spelling.

The work was partly supported by RFBR grant 01-04-48134 [Biodiversity of the molluscs of Russia and adjacent territories (inventory of the fauna)].

REFERENCES

Abbott R.T. 1974. *American Seashells*. Second edition. Van Nostrand Reinhold Company, 663 pp.

Abbott R.T., Dance S. P. 1990. *Compendium of Seashells*. Fourth edition. Madison Publishing Associates, 411 pp.

Beautemps-Beaupré C. F., de Blainville H.M.D., de Beaumont E., 1840. Rapport sur le travaux scientifiques exécutés pendant le voyage de la frégate *Vénus*, commandée par M. le capitaine de vaisseau Du-Petit-Thouars. *Compte Rendu des Séances de l'Académie des Sciences,* 1858, 11, No. 8: 298-343.

Bogdanov I. P., Sirenko B.I., 1993. *Seashells of Russia in colour*. La Conchiglia, 76 pp.

Chamberlin J. L., 1960. Voyage of the Venus. *Nautilus*, 74(2): 65-68.

Fischer-Piette E., Beigbeder J., 1943. Catalogue des types de gastéropodes marins conservés au Labo-

ratoire de Malacologie. 1. *Bulletin du Muséum national d'Histoire naturelle, ser. 2*, 15(4): 203-209.

Gladenkov Yu. B., Sinelnikova V.N., Titova L.V., 1988. Stages of the development of the fauna of the shelf basins of the Neogene of Kamchatka. In: *Lithology and stratigraphy of the Mesozoic and Cenozoic of the eastern regions of the USSR*. Moscow, Nauka: 58-135 [In Russian].

Golikov A.N., 1961. Ecology of reproduction and the nature of egg capsules in some gastropod molluscs of the genus *Neptunea* (Bolten). *Zoologicheskij Zhurnal,* 60(7): 997-1008 [In Russian].

Golikov A. N. 1963. Gastropods of the genus *Neptunea* Bolten. *Fauna of USSR, published by Zoological Institute of Academy of Sciences of USSR. Leningrad, Nauka, Mollusks*, 5(1): 1-217 [In Russian].

Golikov A.N. 1995. *Shell-bearing gastropods of the Arctic.* Moscow, Colus, 108 p.

Golikov A.N., Goryachev V.N., Kantor Yu.I., 1987. New sinistral species of the genus *Neptunea* (Gastropoda, Buccinidae) in the Okhotsk Sea. *Zoological Journal,* 66: 765-770. [In Russian].

Golikov A.N., Gulbin V.V. 1977. Prosobranchiate gastropods (Gastropoda, Prosobranchiata) of the shelf of Kurile Islands. II. Ordo Hamiglossa - Homoestropha. In: *Fauna of coastal zones of Kurile Islands*. Nauka. Moscow: 172-268 [In Russian].

Golikov A.N., Kussakin O.G. 1978. Shell-bearing gastropods of the intertidal zone of the seas of USSR. *Opredeliteli po faune SSSR*, 116: 1-256 [In Russian].

Golikov A.N., Scarlato O.A. 1985. Shelled gastropods and bivalve molluscs of the shelf of southern Sakhalin and their ecology. In: *Biocenoses and fauna of the shelf of south Sakhalin. Issledovaniya fauny morei*, 30(38): 360-487. [In Russian].

Goryachev V.N. 1974. On the zoogeographical boundary of the Arctic region in the Bering Sea. In: *Hydrobiology and biogeography of the shelf of the temperate and cold waters of the Ocean. Leningrad, November 18-21. Abstract of communications*: 59-60 [In Russian].

Goryachev V. N. 1975/ Distributrion of molluscs of the genus *Neptunea* Bolten in the Bering Sea. In: *Fifth Meeting of the investigations of Molluscs. Abstracts of communications.* Leningrad, Nauka: 142-144 [In Russian].

Goryachev V.N. 1978. *Gastropods of the genus* Neptunea *Röding, 1798 of the Bering Sea*. Moscow. Nauka, 92 p. [In Russian].

Goryachev V.N. 1987. On the history of the formation of the fauna of *Neptunea* (Gastropoda, Buccinidae) of the northern Pacific. In: *Fauna and distribution of molluscs: northern Pacific and Polar basin.* Vladivostok: 57-64 [In Russian].

Habe T., Ito K. 1965a. *Shells of the world in color. 1. The Northern Pacific.* Hoikusha, Japan, 176 p.

Lamy E., 1922. Révision des Carditacea vivants du Muséum national d'Histoire naturelles de Paris. *Journal de Conchyliologie,* 66: 218-368, pl. 7-8.

La Rocque A., 1953. Catalogue of the Recent Molluscs of Canada. *National Science Museum of Canada Bulletin,* 129: 1-379.

Macpherson E., 1971. The marine molluscs of Arctic Canada. *National Museum of Natural Sciences, Publications in Biological Oceanography,* No. 3: viii+149 p.

Middendorff A.T. 1848. Vorläufige Anzeige einiger neuer Konchylien aus den Geschlechtern: *Littorina, Tritonium, Bullia, Natica* und *Margarita. Bulletin de la Classe Physico-Mathématique de l'Académie Impériale des Sciences de Saint-Pétersbourg, 7*(16): 242-249.

Middendorff A.T. 1849. Beiträge zu einer Malacozoologia Rossica. II. Aufzählung und Beschreibung der zur Meeresfauna Russlands gehörigen Einschaler. *Mémoires de l'Académie Impériale des Sciences de Saint-Pétersbourg. Série 6. Sciences Mathématique, Physique et Naturelles,* 8(2), 187 S.

Petrov O.M., 1982. *Marine molluscs of the Antropogene from the northern region of the Pacific*. Moscow, Nauka, 142 p. [In Russian].

Piskunov A.I. 1978. Distribution of some species of gastropods of the family Buccinidae in the northern part of the Okhotsk Sea. In: *Investigations on the biology of fishes and fisheries oceanography*. Moscow, VNIRO: 62-66 [In Russian].

Piskunov A.I. 1982. Some features of the ecology of the gastropods of the family Buccinidae in the Okhotsk Sea. *Izvestiya TINRO,* 106: 74-79 [In Russian].

Scarlato O.A. 1952. On the study of molluscs of the family Buccinidae of Soviet Far-Eastern seas. *Uchenye zapiski Leningradskogo gosudarstvennogo universiteta,* 145, *seriya biologicheskaya,* 31: 120-124 [In Russian].

Shikama T., Horikoshi M., 1963 *Selected shells of the world, illustrated in colours (I)*. Hokuryu-Kan, 154 pp.

Shuntov V. P., Dulepova E. P., 1995. Recent conditions, biological and fish productivity of the ecosystem of the Bering Sea. In: *Complex investigations of the ecosystem of the Bering Sea,* Moscow, Izdatelstvo VNIRO: 358-387 [In Russian].

Tiba R., Kosuge S. 1988. North Pacific Shells. 17. Genus *Neptunea* (Bolten) Roeding, 1798. *Occasional Publication of the Institute of Malacology of Tokyo*: 17-1-17-95.

Titova L. V. 1986. Distribution of the gastropods of the family Buccinidae in the upper Cenozoic deposits of the western Kamchatka. *Izvestiya Akademii nauk SSSR, seriya geologicheskaya,* No. 5: 50-62 [In Russian].

Ushakov P.V. 1952. *Fauna of the Okhotsk Sea and conditions of its existence*. Moskva, Izdatelstvo Akademii nauk SSSR, 459 p. [In Russian].

Valenciennes A. 1846. Atlas de Zoologie, Mollusques. In: du Petit-Thouars A. *Voyage autour du monde sur la frégate la Vénus, pendant les années 1836-1839; publié par ordre du Roi sous les auspices du Ministre de la Marine*. Gide et Cie., Paris: 27 pls., numbered 1-24.